

solitary toward maturity. They feed chiefly upon white willow, *Salix lasiolepis* and *S. lasiandra*, or the smooth-barked willow, like the Eastern golden willow, and also upon the cottonwood, *Populus Fremonti*. I have also found their eggs upon *Artemisia*, "Roman wormwood," but I do not think that plant can be a normal food-plant. The larvæ are yellowish, very much like those of *Vanessa Antiopa*, but are larger and lacking the red dorsal tufts of the latter; are spiny, and apt to be annoying if they fall upon a person's neck as he goes among the trees where they live, wherefore they are locally known as "the poisonous caterpillar." At maturity they come down the stem of the willow, and pupate in the ground or among the rubbish. Such as I have had to pupate in confinement, do so without making any sort of cocoon, but with chrysalis naked, like that of a butterfly.

STRAY NOTES ON MYRMELEONIDÆ, PART 4.

BY DR. H. A. HAGEN, CAMBRIDGE, MASS.

(Continued from vol. xix., page 217.)

Gen. nov., BRACHYNEMURUS.

Tibiæ calcarate; spurs as long as the two basal joints, or a little shorter; antennæ longer than head and thorax, stout, cylindrical, a little thicker to tip, which is bluntly pointed, but not clavate; palpi about equal, last joint of labials (except in *B. longipalpis*) with the basal two thirds inflated, fusiform; abdomen long, slender, about half longer than the wings (male); or as long as the wings (female); male appendages very short, less than half the length of last segment, stout, cylindrical, very hairy and spinous; a very small ventral triangular plate below and between them. Female superior parts split, with numerous very strong spines; a short flat appendage each side of the ventral part. Wings long, bluntly pointed, hind wings narrower; costal space with two series of arcoles, or with one series, and the apical transversals forked.

1. *Brachynemurus longicaudus* Br.

Burm. II., 994, 8 : Ramb., 386, 2, pl. 12, f. 3 ; Walk., 329, 46 ; Hag. Syn. N. A., 227, 4.

Body luteo-fuscous, hairy, very slender ; head very small ; antennæ longer than head and thorax, strong, thicker to tip, brown, somewhat reddish before the apical part ; vertex elevated, with a split in the middle anteriorly, luteous, with a transversal blackish band ; another larger transversal blackish band, in which the antennæ are inserted, is notched below ; face luteous, with a faint black longitudinal line. Palpi short, feeble, pale luteous ; maxillary cylindrical, apical joint brown ; labial not longer, paler, last joint fusiform, its basal half brown ; prothorax slender fuscous, variegated with gray, two pale gray spots near the front border, and some laterally ; mesothorax and metathorax fuscous, with yellowish marks ; abdomen very slender, a little less long than twice the length of hind wing, hairy, fuscous, basal half above with a yellowish band, a little enlarged on the articulation, and divided by a median fine black line ; segments 2 to 5 of equal length, 7 a little shorter ; appendages blackish, fuscous, with long black spines and hairs ; compressed, about one fourth the length of the last segment, straight, after the basal half narrowed ; a short triangular yellow plate below ; legs pale, densely sprinkled with black, with long bristles ; tip of tibiæ, third joint of tarsi on tip, fourth joint entirely, and tip of last joint black ; spurs light brown, of the fore legs nearly as long as the two basal joints ; wings narrow, hyaline, venation close, two series of areoles in the costal space of front wings ; transversals in the costal space of hind wings furcate in the apical half ; veins brown, interrupted with white ; pterostigma small, white ; front wings rarely sprinkled with fuscous, with three obsolete dots along the submediana. Male.

Length of body, ♂ 38 to 45, ♀ 27 m.m. ; expanse al., 44-48 m.m.

Hab. Georgia, Burmeister's type with label in his handwriting, from Savannah, collect. Winthem ; two males from Millin, Scriven Co., Ga., July, 1876, coll. by Morrison ; two males from Florida, Cedar Keys, June 4, and Crescent City, by Hubbard ; one male Amer. merid., out of the late Dr. Schneider's coll. (perhaps this locality is erroneous).

Burmeister, l. c., quotes a female : "Abdomine alis æquali ; fusco hirsutiusculo ; length 25 m.m." When Winthem's collection came in my hands, this female was wanting. Formerly I had this species determined in my publications as *M. abdominalis* Say ; I believe now this species to be different.

Mr. Taschenberg (Zeitschr. Giebel., vol. 52, p. 213) describes the types of Burmeister in the Halle Museum of *M. irroratus*, from S. Carolina, Zimmermann. The two females belong evidently to *M. longicaudus*. Though I have no female of this species before me, the identity is proved by Taschenberg's description and by the mention of the three obsolete dots along the submediana of the front wings. There can be no doubt that these females are the types of *M. irroratus*, as in the Halle coll., and in Burm. Hdl., No. 11; but I repeat that the male described by me has on the pin the label "*irroratus* Burm." in his handwriting. As the name *irroratus* is pre-occupied, no change is needed.

2. *Brachynemurus nebulosus* Ramb.

Myrmecleon nebulosus Ramb., 387, 4; Walk., 33c, 48.

Very slender, villous; head small, blackish; face dull yellowish, with a fine transversal line before labrum and a longitudinal line, black; below the antennæ an incurvate black line; vertex elevated, not cut sharply in front, more rounded, grayish-fuscous, as well as the occiput, with some blackish not well defined spots; antennæ as long as head and thorax, strong, cylindrical, rather enlarged to tips, rufo-fuscous, articulations faint yellowish; palpi dull yellowish, the labials about as long as the maxillary, last joint longer, cylindrical, its basal half a little thicker and darker. Prothorax narrow, blackish, with three ill defined yellowish bands, beginning on the front margin; the median very short, split, the two others running together before the wings; meso- and meta-thorax blackish, each above with a yellow geminate spot and some marks near the wings; on each side above the legs some yellow stripes. Abdomen of the male very slender, much longer than the wings, villous, blackish; basal half above with a pale longitudinal band, interrupted on tip of segments; apical half black with a pale basal dot, and sometimes another one in the middle; appendages about half the length of last segment, with long black hairs, compressed, the base enlarged to reach the dorsum; below and between them a very short and small triangular whitish plate. Abdomen of the female as long as the wings, compressed on the more enlarged apical third; colored as the male; genital parts in the last segment above yellow, split, surrounded with strong black bristles; below two short thick black appendages. Legs short, pale yellow, much sprinkled with black, with white and black hairs; tip of tibiæ and of all joints of tarsi (the fourth entirely) black; spurs brown, as long as the two basal joints;

claws brown, as long as the spurs. Wings narrow, with fringes on hind margin, which is very little emarginate before tip; hyaline; venation pale interrupted with brown; base of numerous forks and around many transversals brown; front wings with many large rusty-brown round spots along the mediana and submediana; apical half of costal space with two series of areoles; hind wings similarly spotted, but without the large rusty-brown spots.

Length of body, male, 38 to 45 m.m.; female, 28 to 31 m.m.; exp. al., 40 to 50 m.m.

Habit., Millin, Scriven Co., Georgia; July, Morrison. I have before me two males and three females; it is a very pretty species and doubtless Rambur's *M. nebulosus*.

I had accepted this species to be *M. contaminatus* Burm., which is, with a short diagnose, only mentioned by his *M. irroratus*. Mr. Taschenberg describes a female, which is not labeled, out of Burmeister's collection. This female belongs doubtless to *M. conspersa* Rbr.; he calls the spurs of the anterior legs shorter than the first joint of tarsi, but these are probably spines. If this is really the type of Burmeister, and I have no doubt of it, the name has to be dropped, as it belongs to *M. conspersa*.

3. *Brachynemurus versutus* Walk.

Myrmelcon versutus Walk., 331, 51; Hag. Syn. Neur. N. Amer., p. 238, No. 8.

Black, very slender, faintly villous; head narrow; front shining, yellow, above a broad black band, notched in middle below, narrowly yellow around the eyes and around the base of antennæ; a black longitudinal line from the middle of the notch to the epistom, where it is enlarged and united with a larger transversal black band (which is sometimes divided into four spots) on the epistom; labrum black shining with yellow side-margins; vertex elevated, rounded, black, with a transversal yellow band, interrupted in middle, and a posterior one, representing a larger yellow spot on each side, and a smaller middle one, a little before them; antennæ of male much longer than head and thorax, about 10 m.m.; of female shorter, about as long as head and thorax, 7 m.m.; long, filiform, a little thicker to the tip, bluntly pointed; those of female a little more enlarged on tip; blackish-brown, the two basal joints shining black; palpi yellow, apical joint of the maxillary black shining, and the two foregoing black.

externally ; labials scarcely longer, last joint shining black, except at extreme base, long, a little inflated, but the apical half thinner. Prothorax yellow, as broad as long, a little narrower in front, with two broad black stripes, each of which includes a yellow dot in front, and another behind them ; meso- and meta-thorax yellow with two interrupted black longitudinal bands and some spots ; sides below the wings black with yellow stripes and dots. Abdomen of male very slender, much longer than wings, 40 m.m., blackish-brown, shortly villous, three basal segments dull yellowish above, with a fine dorsal median black line, the other segments black, with a fine yellow dorsal line ; appendages testaceous, more yellowish at base and tip, with long black hairs and bristles, long, but shorter than the segment before last, straight ; between them below a very short triangular yellow plate ; abdomen of female as long as wings, stouter, enlarged and compressed to the tip ; same coloration ; genitals yellow ; upper part inflated, with many strong black spines ; below two very short cylindrical yellow appendages. Legs yellow, largely sprinkled with black, with numerous hairs ; tip of tibiæ and of all joints of tarsi black ; spurs brown, as long as the two basal joints ; claws brown. Wings hyaline, thickly and almost equally covered with small brown dots, which are all at the base of the small forks, and on base and tip of the transversals ; veins brown interrupted with white ; pterostigma larger, bright yellow ; apical half of costal space with forked veins ; wings around and on the veins hairy.

Length of body, male, 42 to 46 m.m.; female, 28 m.m.; exp. al., 55 to 60 m.m.

Hab., San Luis, Mexico ; September and October, Dr. Palmer ; three males and six females. I think there is no doubt that this is the species described by Walker after one male.

NOTE ON LATE PAPERS ON THE NOCTUIDÆ.

BY A. R. GROTE, A. M.

My last paper in the Proceedings of the Am. Philosophical Society, Philadelphia, contains a number of typographical errors, the most serious of which I corrected subsequently by an "errata" in a later volume, not